

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	peak near2 jong-sung.in.	US-PGPUB; USPAT	OR	OFF	2006/12/14 12:48
S2	9846	amd.asn. applied.asn. kla.asn. orbotech.asn.	US-PGPUB; USPAT	OR	ON	2006/12/14 12:52
S3	87	alignment near2 mark and S2	US-PGPUB; USPAT	OR	ON	2006/12/14 12:52
S4	2	alignment near2 mark with (expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) and S2	US-PGPUB; USPAT	OR	ON	2007/05/17 17:45
S5	575	382/151.ccls.	US-PGPUB; USPAT	OR	ON	2006/12/18 12:41
S6	16	alignment near2 mark with (expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) and S5	US-PGPUB; USPAT	OR	ON	2007/05/16 09:47
S7	1388	alignment near2 mark with (expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5)	US-PGPUB; USPAT	OR	ON	2006/12/14 13:12
S8	1226	alignment near2 mark with (expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) and (semiconductor wafer PCB circuit adj board)	US-PGPUB; USPAT	OR	ON	2006/12/14 13:13
S9	14	alignment near2 mark with (expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) same (alignmet mark) with (identif\$6 recogn\$7 match\$3 verif\$8) near3 (pattern) and (semiconductor wafer PCB circuit adj board)	US-PGPUB; USPAT	OR	ON	2006/12/14 13:15
S10	24	("3821545"   "3861798"   "3928094"   "4815854"   "4838693").PN. OR ("5172190").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/14 13:18
S11	343	382/151.ccls. and (recogn\$6 identif\$7 match\$3) with (pattern mark align\$4)	US-PGPUB; USPAT	OR	ON	2006/12/14 16:13
S12	223	pattern near3 (recogni\$4 identif\$6 match\$3) with align\$4 near2 (mark symbol seal)	US-PGPUB; USPAT	OR	ON	2006/12/18 12:42
S13	575	382/151.ccls.	US-PGPUB; USPAT	OR	ON	2006/12/18 12:42
S14	17	S13 and S12	US-PGPUB; USPAT	OR	ON	2006/12/18 12:42

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S15	9	("3898617"   "4115762"   "4566125"   "4688088"   "4794646"   "4794648"   "4878114"   "5543921"   "5627912").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/18 13:09
S16	607	382/151.ccls.	US-PGPUB; USPAT	OR	ON	2007/05/16 09:49
S17	2	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) with (crop\$4 delet\$3) and S16	US-PGPUB; USPAT	OR	ON	2007/05/16 09:58
S18	4	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) with (crop\$4 delet\$3) same align\$4 and "382".clas.	US-PGPUB; USPAT	OR	ON	2007/05/16 09:53
S19	94	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) with (crop\$4 delet\$3) same (recogni\$5 identif\$7 match\$3) and "382".clas.	US-PGPUB; USPAT	OR	ON	2007/05/16 09:54
S20	28	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) with (crop\$4 delet\$3) same (recogni\$5 identif\$7 match\$3) and "382".clas. and align\$4	US-PGPUB; USPAT	OR	ON	2007/05/16 09:58
S21	25	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) and (crop\$4 delet\$3) and S16	US-PGPUB; USPAT	OR	ON	2007/05/16 10:07
S22	16	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) same (crop\$4 delet\$3) same (align\$4 mark match identif\$7 recogn\$5) and 382/135-154,184,190,199,287.ccls.	US-PGPUB; USPAT	OR	ON	2007/05/16 10:16
S23	30	(expand\$3 magnif\$7 expansion zoom\$3 focus\$3 enlarg\$5) same (crop\$4) and 382/135-154,184,190, 199,287.ccls.	US-PGPUB; USPAT	OR	ON	2007/05/16 16:57
S24	23	S23 not S22	US-PGPUB; USPAT	OR	ON	2007/05/16 10:27
S25	0	search near3 area with zoom\$3 with crop\$4	US-PGPUB; USPAT	OR	ON	2007/05/16 10:28
S27	0	wafer same alignment near2 mark with zoom\$3	US-PGPUB; USPAT	OR	ON	2007/05/16 17:08
S28	6	alignment near2 mark with zoom\$3	US-PGPUB; USPAT	OR	ON	2007/05/16 17:22
S29	386	alignment near2 mark with enlarg\$6	US-PGPUB; USPAT	OR	ON	2007/05/16 17:10
S30	168	alignment near2 mark with enlarg\$6 same (wafer semiconductor circuit pcb)	US-PGPUB; USPAT	OR	ON	2007/09/12 15:44

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S31	46	alignment near2 mark with enlarg\$6 same (wafer semiconductor circuit pcb) and alignment near2 mark with (identif\$7 recogni\$6 distinguish\$3 match\$3)	US-PGPUB; USPAT	OR	ON	2007/05/16 17:14
S32	19	("20010046315"   "20020175300"   "20020176096"   "20040114143"   "20040129900"   "4669883"   "4777641"   "4883359"   "4971444"   "5133603"   "5659384"   "5680200"   "5760411"   "6151120"   "6285033"   "6493065"   "6529625"   "6563573"   "6844918").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/05/16 17:19
S33	12	(enlarg\$4 magnif\$5) and S32	US-PGPUB; USPAT; USOCR	OR	OFF	2007/05/16 17:20
S34	12	(enlarg\$4 magnif\$5 zoom\$3) and S32	US-PGPUB; USPAT; USOCR	OR	OFF	2007/05/16 17:20
S35	113	reference near2 mark with (zoom\$3 enlarg\$3 magnif\$7) same align\$4	US-PGPUB; USPAT	OR	ON	2007/05/16 17:28
S36	51	reference near2 mark with (zoom\$3 enlarg\$3 magnif\$7) and mark with (identif\$7 recogni\$6 distinguish\$3 match\$3) and (wafer semiconductor circuit pcb) with align\$4	US-PGPUB; USPAT	OR	ON	2007/05/16 17:29
S37	48	reference near2 mark with (zoom\$3 enlarg\$3 magnif\$7) and mark with (identif\$7 recogni\$6 distinguish\$3 match\$3) and (wafer semiconductor circuit pcb) with align\$4 not S31	US-PGPUB; USPAT	OR	ON	2007/05/17 10:50
S38	21	(reference wafer alignment) near2 mark near7 (zoom\$3)	US-PGPUB; USPAT	OR	ON	2007/05/17 17:46
S39	1	"20040037458"	US-PGPUB; USPAT	OR	ON	2007/05/17 17:35
S40	6	(reference wafer alignment) near2 mark near7 (window adj frame)	US-PGPUB; USPAT	OR	ON	2007/05/17 10:52
S41	1089	coarse same fine same (alignment reference wafer key) near2 mark	US-PGPUB; USPAT	OR	ON	2007/05/17 11:06
S42	1	coarse near3 search same fine same (alignment reference wafer key) near2 mark	US-PGPUB; USPAT	OR	ON	2007/05/17 11:05
S43	0	("2005/0156334").URPN.	USPAT	OR	OFF	2007/05/17 11:06
S45	6	coarse same fine same (alignment reference wafer key) near2 mark and 382/145-151.ccis.	US-PGPUB; USPAT	OR	ON	2007/05/17 11:10

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S46	0	bishop.in. and 382/151.ccls.	US-PGPUB; USPAT	OR	ON	2007/05/17 11:07
S47	4	bishop.in. and 382/145-152.ccls.	US-PGPUB; USPAT	OR	ON	2007/09/18 21:22
S48	1069	coarse same fine same (alignment reference wafer key) near2 mark and (wafer semiconductor circuit pcb) and align\$4	US-PGPUB; USPAT	OR	ON	2007/05/17 11:11
S49	24	coarse same fine same (alignment reference wafer key) near2 mark same (zoom\$3 enlarg\$4 magnif\$7) and (wafer semiconductor circuit pcb) and align\$4	US-PGPUB; USPAT	OR	ON	2007/05/17 11:16
S50	103	382/151.ccls. and alignment near2 mark	US-PGPUB; USPAT	OR	ON	2007/05/17 11:17
S51	0	382/151.ccls. and alignment near2 mark with "fig."	US-PGPUB; USPAT	OR	ON	2007/05/17 11:16
S52	0	382/151.ccls. and alignment near2 mark with fig	US-PGPUB; USPAT	OR	ON	2007/05/17 11:17
S53	5	CCD with grey and 382/145-151. ccls.	US-PGPUB; USPAT	OR	ON	2007/05/17 17:35
S54	10455	(reference wafer alignment) near2 mark same (semiconductor wafer pcb board circuit)	US-PGPUB; USPAT	OR	ON	2007/05/17 17:48
S55	264	(reference wafer alignment) near2 mark with figure same (semiconductor wafer pcb board circuit)	US-PGPUB; USPAT	OR	ON	2007/05/17 17:49
S56	178	(reference wafer alignment) near2 mark with figure same (semiconductor wafer)	US-PGPUB; USPAT	OR	ON	2007/05/17 18:13
S57	1	"5151750".pn.	US-PGPUB; USPAT	OR	ON	2007/05/17 18:13
S58	1	"20040037458"	US-PGPUB	OR	ON	2007/09/12 16:10
S59	17	(key primary main) adj align\$4 adj mark	US-PGPUB	OR	ON	2007/09/12 16:12
S60	19	(key primary main) adj (align\$4 reference) adj mark	US-PGPUB	OR	ON	2007/09/12 16:15
S61	27	(key primary main) adj (align\$4 reference) adj mark	USPAT	OR	ON	2007/09/12 16:26
S63	79548	(detect\$3 find\$3 recogni\$7 identif\$7 search\$3) near3 (key (reference wafer alignment) near2 mark)	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:40
S64	106	coarse same fine same S63	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:24

## EAST Search History

S65	13482	(delet\$3 filter\$3) near7 (key (reference wafer alignment) near2 mark)	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:25
S66	3	S64 and S65	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:25
S67	20208	382/145-152.ccls. 257/797.ccls. 438/14,15.ccls. 356/399-401.ccls. 355/53,55.ccls. 430/22,30.ccls. 250/548.ccls. 349/158,110,129.ccls. 437/5.ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:30
S68	30	S64 and S67	US-PGPUB; USPAT	OR	ON	2007/09/12 16:39
S69	3859	(detect\$3 find\$3 recogni\$7 identif\$7 search\$3 match\$3) near3 (shape type) near3 (mark key)	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 11:42
S72	858	amd.asn. applied near2 m.asn. kla. asn. orbotech.asn.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:42
S73	20906	S67 S72	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:42
S74	17	S73 and S69 and S65	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 16:43
S75	25	(US-20020191860-\$ or US-20030199131-\$ or US-20020006561-\$).did. or (US-5172190-\$ or US-6925203-\$ or US-4213117-\$ or US-4880309-\$ or US-4115762-\$ or US-5815594-\$ or US-4566125-\$ or US-4794648-\$ or US-4667109-\$ or US-5680200-\$ or US-6072915-\$ or US-6668075-\$ or US-4699515-\$ or US-5272763-\$ or US-6424052-\$ or US-6278957-\$ or US-6295120-\$ or US-6856931-\$ or US-3796497-\$ or US-4798470-\$ or US-6373548-\$ or US-5771085-\$). did.	US-PGPUB; USPAT	OR	OFF	2007/09/12 17:11
S76	1	crop\$4 and S75	US-PGPUB; USPAT	OR	OFF	2007/09/12 17:11
S79	191	crop\$3 near7 (key (reference wafer alignment) near2 mark)	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 17:15
S80	1	S73 and S79	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 17:16

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S81	494	(trim\$4 clip\$4 cut\$4 delet\$4 reduc\$3) near5 (key (reference wafer alignment) near2 mark) and S73	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/18 21:24
S82	130	(trim\$4 clip\$4 cut\$4 delet\$4 reduc\$3) near5 (key (reference wafer alignment) near2 mark) same S63 and S73	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/12 17:17
S83	25	("3502993"   "3818445"   "3909594"   "3944977"   "4200861"   "4213117"   "4334241"   "4449240").PN. OR ("4566125").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/12 17:20
S84	166	382/287.ccls.	US-PGPUB; USPAT	OR	ON	2007/09/18 21:23
S85	40108	(trim\$4 clip\$4 cut\$4 delet\$4 reduc\$3 mask\$3) near5 (key (reference wafer alignment) near2 mark)	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/18 21:26
S86	7	S85 and S84	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/18 21:26
S87	26	(US-20020006561-\$ or US-20020191860-\$ or US-20030199131-\$).did. or (US-5815594-\$ or US-4880309-\$ or US-5172190-\$ or US-6925203-\$ or US-6856931-\$ or US-6072915-\$ or US-4566125-\$ or US-4213117-\$ or US-3796497-\$ or US-6373548-\$ or US-4115762-\$ or US-4794648-\$ or US-6333992-\$ or US-4667109-\$ or US-5680200-\$ or US-4699515-\$ or US-6668075-\$ or US-6295120-\$ or US-5272763-\$ or US-6424052-\$ or US-4798470-\$ or US-6278957-\$ or US-5771085-\$).did.	US-PGPUB; USPAT	OR	OFF	2007/09/19 11:43
S88	3862	(detect\$3 find\$3 recogni\$7 identif\$7 search\$3 match\$3) near3 (shape type) near3 (mark key)	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 11:43
S89	5	S88 and S87	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 11:43
S90	11	("3898617"   "4115762"   "4566125"   "4688088"   "4794646"   "4794648"   "4878114"   "5543921"   "5627912").PN. OR ("6072915").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 12:01

## EAST Search History

S91	8	align\$5 and S90	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 12:02
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## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3719	(trim\$4 clip\$4 cut\$4 delet\$4 reduc\$3 mask\$3).clm. near5 (key (reference wafer alignment) near2 mark)	US-PGPUB; USPAT; USOCR	OR	ON	2008/01/10 12:19
L2	31352	382/151,287.ccls. amd 1	US-PGPUB; USPAT; USOCR	OR	ON	2008/01/10 12:20
L3	13	382/151,287.ccls. and 1	US-PGPUB; USPAT; USOCR	OR	ON	2008/01/10 12:20